

Client's ref: electrochemical cell

File: 0640-5123US/final/Jessica Chen

What is claimed is:

1 1. A metal-air cell having an anode/electrolyte and a
2 cathode with a separator positioned there-between, said cell
3 comprising:

4 a container having an upper interior surface and a
5 lower interior surface for housing said anode/electrolyte
6 and said cathode;

7 a spring disposed on said upper interior surface;

8 a cover electrically connected to said cathode and
9 having at least one recess;

10 at least one o-ring disposed on said lower interior
11 surface facing said at least one recess;

12 wherein said spring is compressed when a predetermined
13 force is applied so that said at least one o-ring and said
14 at least one recess are separated, thereby forming an inlet
15 to introduce air for electrochemical reaction; and said
16 spring is expanded when said predetermined force is removed
17 so that said at least one o-ring is inserted within said at
18 least one recess to obstruct the air.

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1 2. A metal-air cell as claimed in Claim 1,
2 wherein said predetermined force is applied by a cell
3 holder.

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1 3. A metal-air cell as claimed in Claim 1,
2 wherein said container is a can-shaped container.

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1 4. A metal-air cell as claimed in Claim 1,
2 further comprising a gas-permeable membrane disposed
3 around said cathode and along said interior sidewalls
4 to prevent moisture from exiting the cell.

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1 5. A metal-air cell as claimed in Claim 4,
2 wherein said gas-permeable membrane comprises a
3 hydrophobic material.

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1 6. A metal-air cell as claimed in Claim 1,
2 wherein said anode is consisted of zinc.

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